



DATE

2/9/23

PRESENTING CLINICAL SIGNS

Hx of elevated liver chems since 2/22. Clinically the dog is doing fine.

PATIENT

Lily Palmer

Current Medications: Herbal supplements, Denamarin.

Lab Results: 8/21 ALKP 921, ALT 106. 11/21 ALKP 1240, ALT 174. 12/21 ALKP 852, GGTP 12. 2/22 ALKP 3511, ALT 97, GGTP 18. 4/22 ALKP 1350, ALT 494, GGTP 12. 6/22 ALKP 1384, ALT 475, GGTP 15. 11/22 ALKP 2470, ALT 1314, GGTP 23. 1/23 ALKP 4343, ALT 3086. Bile acids pre >420 and post 121.2.

SPECIES

Canine

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

BREED

Pug X

Imaging Performed By: Rachel Brillhart, RDMS.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

SEX

Spayed Female

Urinary System

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes were noted. Ureteral papillae were normal.

AGE

6/28/10

The **kidneys** revealed normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex and no evidence of pelvic dilation was present. The capsules were acceptably uniform without significant irregularities. The right kidney measured 5.27 cm.

WEIGHT

22.3 Pounds

Adrenal Glands

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The left adrenal gland measured 2.0 cm x 0.52 cm at the caudal pole and 0.55 cm at the cranial pole. The right adrenal gland measured 2.0 cm x 0.56 cm at the caudal pole and 0.61 cm at the cranial pole.

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

HOSPITAL NAME

Healing Paws Wellness
Center

Spleen

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes were noted.

REFERRING VET

Dr. Levitsky

Liver

The **liver** was riddled with multiple biliary calculi, a cluster of which measured approximately 1.5 cm. Biliary calculi noted in the region of the gallbladder fossa. However, the gallbladder itself was not evident. What appeared to be the cystic duct was recognizable. The common bile duct was dilated with calculi and echogenic debris, followed to the duodenal papilla. The common bile duct measured up to 0.70 cm, which is technically a surgical biliary duct. However, an overt obstruction did not appear to be present. Likely strictured or dysfunction duodenal papilla. Some hepatic remodeling noted, yet changes were certainly not end stage, and fairly minor. Clusters of calculi also noted in the left liver up to 1.55 cm.

INVOICE

45019

Gastrointestinal

Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Small and large intestine demonstrated

normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

Pancreas

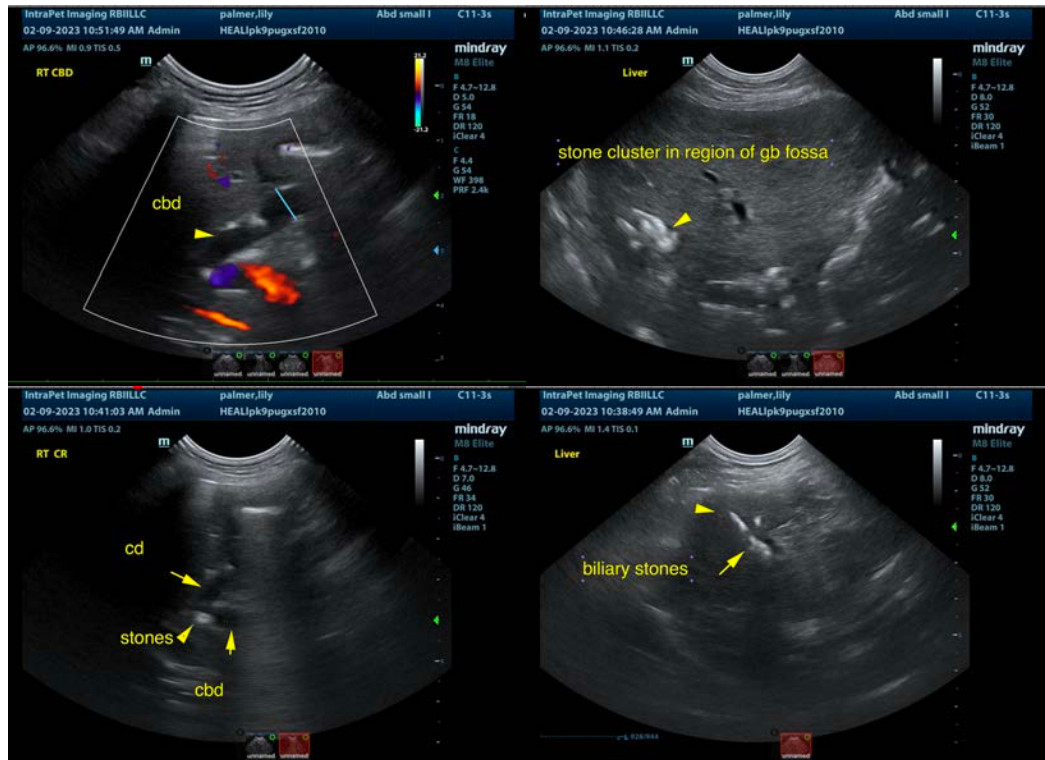
The **pancreas** revealed heterogeneous parenchymal changes, yet not a primary issue. Prior pancreatitis with stricture of the common bile duct is a potential, yet no evidence of active inflammation.

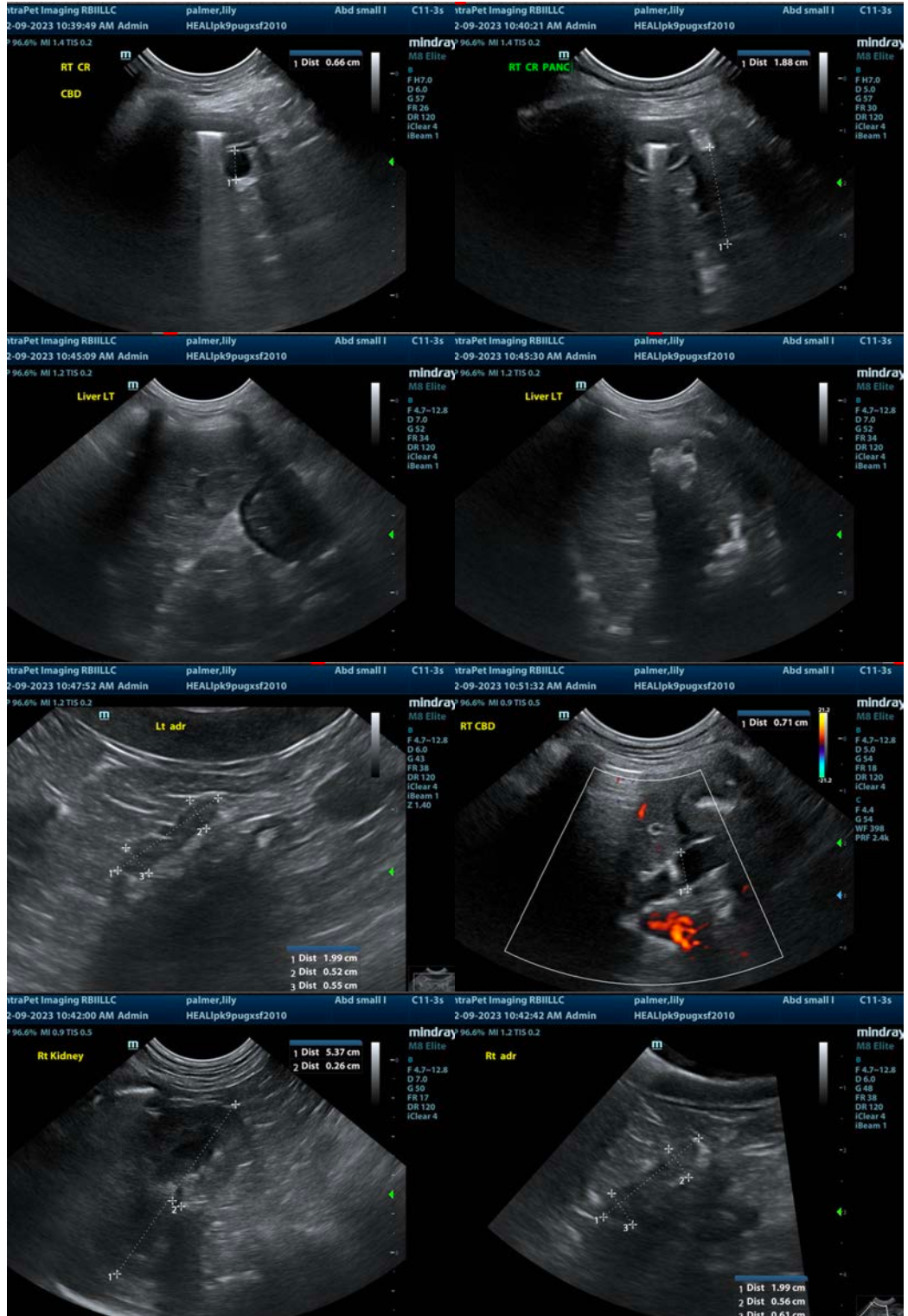
ULTRASONOGRAPHIC FINDINGS

- Hepatic biliary lithiasis without overt evidence of gallbladder – Gallbladder aplasia or significantly subnormal size, or prior rupture and closure are all possible in this patient.
- Chronic inflammatory hepatopathy
- Dilated common bile duct at surgical biliary criteria

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No evidence of intrahepatic or extrahepatic shunting. Recommend surgical intervention with the objective of deviating and liberating the common bile duct to ensure adequate bile flow with bile duct transposition. Liver biopsy and removal of available calculi all indicated. Leptospirosis titers warranted to rule out underlying inciting issues.





The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that

was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

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